

Docket No.: MUH-12807

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : HAGEN KLAUK ET AL.
Filed : CONCURRENTLY HEREWITH
Title : SELF-ALIGNED CONTACT DOPING FOR ORGANIC FIELD-EFFECT TRANSISTORS AND METHOD FOR FABRICATING THE TRANSISTOR

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with 37 C.F.R. 1.98 copies of the following patents and/or publications are submitted herewith:

U.S. Patent No. 4,588,609 (Leyden et al.), dated May 13, 1986;

U.S. Patent No. 4,910,149 (Okube et al.), dated March 20, 1990;

U.S. Patent No. 5,447,824 (Mutsaers et al.), dated September 5, 1995;

U.S. Patent No. 5,250,388 (Schoch, Jr. et al.), dated October 5, 1993;

U.S. Patent No. 5,942,374 (Smayling), dated August 24, 1999;

Patent Abstracts of Japan 04356931 A (Mamoru et al.), dated December 10, 1992;

European Patent Application EP 0 399 299 A2 (Angelopoulos et al.), dated November 28, 1990;

PCT WO 97/39383 (Murphy et al.), dated October 23, 1997;

Liming, D. et al.: "Photochemical Generation of Conducting Patterns in Polybutadiene Films", American Chemical Society, *Macromolecules*, Vol. 29, 1996, pp. 282-287;

Pichler, K. et al.: "Field-Effect Transistors Based on Poly (p-Phenylene Vinylene) Doped by Ion Implantation", American Institute of Physics, *Journal of Applied Physics*, Vol. 77, No. 7, April 1, 1995, pp. 3523-3527;

Yamashita, K. et al.: "Fabrication of an Organic p-n Homojunction Diode Using Electrochemically Cation- and Photochemically Anion-Doped Polymer", *Jpn. J. Appl. Phys.*, Vol. 34, Part 1, No. 7B, July 1995, pp. 3794-3797;

Klauk, H. et al.: "A Reduced Complexity Process for Organic Thin Film Transistors", American Institute of Physics, *Applied Physics Letters*, Vol. 76, No. 13, March 27, 2000, pp. 1692-1694;

Zhou, X. et al.: "A Route to Stable Interfaces Between Dissimilarly Doped Conjugated Polymers", Materials Research Society, *Mat. Res. Soc. Symp. Proc.*, Vol. 598, 2000, pp. BB5.7.1-BB5.7.6;

Garnier, F. et al.: "Tunneling at Organic/Metal Interfaces in Oligomer-Based Thin-Film Transistors", *MRS Bulletin*, June 1997, pp. 52-56;

Koezuka, H. et al.: "Polythiophene Field-Effect Transistor with Polypyrrole Worked as Source and Drain Electrodes", American Institute of Physics, *Applied Physics Letters*, Vol. 62, No. 15, April 12, 1993, pp. 1794-1796;

Koezuka, H. et al.: "Field-Effect Transistor Utilizing Conducting Polymers", *Synthetic Metals*, Elsevier Sequoia, Vol. 28, 1989, pp. C753-C760;

Angelopoulos, M. et al.: "In-Situ Radiation Induced Doping", Gordon and Breach Science Publishers S.A., Mol. Cryst. Liq. Cryst., Vol. 189, 1990, pp. 221-225;

Wolcszczak, M. et al.: "Some Aspects of the Radiation Processing of Conducting Polymers", Elsevier Science Ltd., Radiat. Phys. Chem., Vol. 45, No. 1, 1995, pp. 71-78;

International Search Report, dated August 21, 2002.

If no translation of pertinent portions of any foreign language patents or publications mentioned above is included with the aforementioned copies of those applications, patents and/or publications, it is because no existing translation is readily available to the applicant.

Respectfully submitted,


For Applicants WERNER H. STEMER
REG. NO. 34,956

Date: October 6, 2003

Lerner and Greenberg, P.A.
Post Office Box 2480
Hollywood, FL 33022-2480
Tel: (954) 925-1100
Fax: (954) 925-1101

/nt/kf

FORM PTO-1449 (SUBSTITUTE) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (37 CFR 1.98(b))				Attorney Docket No.: MUH-12807 Appl. No.: _____ Applicant: HAGEN KLAUK ET AL. Filing Date: October 6, 2003 Group Art Unit: _____			
EXAMINER INITIALS		PATENT NO.	DATE	PATENTEE	CLASS	SUB CLASS	FILING DATE
	A	4,588,609	5/13/86	Leyden et al.			
	B	4,910,149	3/20/90	Okube et al.			
	C	5,447,824	9/5/95	Mutsaers et al.			
	D	5,250,388	10/5/93	Schoch, Jr. et al.			
	E	5,942,374	8/24/99	Smayling			
	F						
	G						
	H						
	I						
FOREIGN PATENT DOCUMENT							
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB CLASS	TRANSL. YES NO
	J	04356931 A	12/10/92	Japan			
	K	0 399 299 A2	11/28/90	Europe			
	L	97/39383	10/23/97	WIPO			
	M						
	N						
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)							
		Liming, D. et al.: "Photochemical Generation of Conducting Patterns in Polybutadiene Films", American Chemical Society, Macromolecules, Vol. 29, 1996, pp. 282-287					
		Pichler, K. et al.: "Field-Effect Transistors Based on Poly (p-Phenylene Vinylene) Doped by Ion Implantation", American Institute of Physics, Journal of Applied Physics, Vol. 77, No. 7, April 1, 1995, pp. 3523-3527					
EXAMINER				DATE CONSIDERED			

FORM PTO-1449 (SUBSTITUTE) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (37 CFR 1.98(b))				Attorney Docket No.: MUH-12807 Appl. No.: Applicant: HAGEN KLAUK ET AL. Filing Date: October 6, 2003 Group Art Unit:			
EXAMINER INITIALS		PATENT NO.	DATE	PATENTEE	CLASS	SUB CLASS	FILING DATE
	A						
	B						
	C						
	D						
	E						
	F						
	G						
	H						
	I						
FOREIGN PATENT DOCUMENT							
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB CLASS	TRANSL. YES NO
	J						
	K						
	L						
	M						
	N						
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)							
		Yamashita, K. et al.: "Fabrication of an Organic p-n Homojunction Diode Using Electrochemically Cation- and Photochemically Anion-Doped Polymer", Jpn. J. Appl. Phys., Vol. 34, Part 1, No. 7B, July 1995, pp. 3794-3797					
		Klausk, H. et al.: "A Reduced Complexity Process for Organic Thin Film Transistors", American Institute of Physics, Applied Physics Letters, Vol. 76, No. 13, March 27, 2000, pp. 1692-1694					
EXAMINER				DATE CONSIDERED			

FORM PTO-1449 (SUBSTITUTE) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (37 CFR 1.98(b))				Attorney Docket No.: MUH-12807 Appl. No.: Applicant: HAGEN KLAUK ET AL. Filing Date: October 6, 2003 Group Art Unit:			
EXAMINER INITIALS		PATENT NO.	DATE	PATENTEE	CLASS	SUB CLASS	FILING DATE
	A						
	B						
	C						
	D						
	E						
	F						
	G						
	H						
	I						
FOREIGN PATENT DOCUMENT							
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB CLASS	TRANSL. YES NO
	J						
	K						
	L						
	M						
	N						
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)							
		Zhou, X. et al.: "A Route to Stable Interfaces Between Dissimilarly Doped Conjugated Polymers", Materials Research Society, Mat. Res. Soc. Symp. Proc., Vol. 598, 2000, pp. BB5.7.1-BB5.7.6					
		Garnier, F. et al.: "Tunneling at Organic/Metal Interfaces in Oligomer-Based Thin-Film Transistors", MRS Bulletin, June 1997, pp. 52-56					
EXAMINER				DATE CONSIDERED			

FORM PTO-1449 (SUBSTITUTE) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (37 CFR 1.98(b))				Attorney Docket No.: MUH-12807 Appl. No.: <hr/> Applicant: HAGEN KLAUK ET AL. <hr/> Filing Date: October 6, 2003 Group Art Unit:			
EXAMINER INITIALS		PATENT NO.	DATE	PATENTEE	CLASS	SUB CLASS	FILING DATE
	A						
	B						
	C						
	D						
	E						
	F						
	G						
	H						
	I						
FOREIGN PATENT DOCUMENT							
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB CLASS	TRANSL. YES NO
	J						
	K						
	L						
	M						
	N						
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)							
		Koezuka, H. et al.: "Polythiophene Field-Effect Transistor with Polypyrrole Worked as Source and Drain Electrodes", American Institute of Physics, Applied Physics Letters, Vol. 62, No. 15, April 12, 1993, pp. 1794-1796					
		Koezuka, H. et al.: "Field-Effect Transistor Utilizing Conducting Polymers", Synthetic Metals, Elsevier Sequoia, Vol. 28, 1989, pp. C753-C760					
EXAMINER				DATE CONSIDERED			

FORM PTO-1449 (SUBSTITUTE) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (37 CFR 1.98(b))				Attorney Docket No.: MUH-12807 Appl. No.: Applicant: HAGEN KLAUK ET AL. Filing Date: October 6, 2003 Group Art Unit:			
EXAMINER INITIALS		PATENT NO.	DATE	PATENTEE	CLASS	SUB CLASS	FILING DATE
	A						
	B						
	C						
	D						
	E						
	F						
	G						
	H						
	I						
FOREIGN PATENT DOCUMENT							
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB CLASS	TRANSL. YES NO
	J						
	K						
	L						
	M						
	N						
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)							
		Angelopoulos, M. et al.: "In-Situ Radiation Induced Doping", Gordon and Breach Science Publishers S.A., Mol. Cryst. Liq. Cryst., Vol. 189, 1990, pp. 221-225					
		Wolczczak, M. et al.: "Some Aspects of the Radiation Processing of Conducting Polymers", Elsevier Science Ltd., Radiat. Phys. Chem., Vol. 45, No. 1, 1995, pp. 71-78					
EXAMINER				DATE CONSIDERED			